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A Comparison of Gambling Behaviours Among Sport-Based and Non-Sport-Based Students in the UK  
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## Abstract

**Purpose:** In recent years, gambling among university students has received significant focus as it may be viewed as an attractive and exciting form of income whilst studying. Given this, stakeholders in protection from gambling-related harm need to better understand student gambling behaviours. This understanding should include students on sports-based programmes given their closer connection to sporting events, heightened sense of competition among such cohorts, and often gendered cohorts.

**Design/methodology/approach:** The present pilot study comprised 210 university students on sports-based and non-sport-based programmes. Participants self-reported frequencies of gambling activity and expenditure via an online survey.

**Findings:** Results showed a significantly greater frequency of female student non-gamblers on non-sports-based degree programmes and a high frequency of male student gamblers on sports-based degree programmes ( $p = 0.02$ ). Sports-based students also reported significantly greater scores on the Problem Gambling Severity Index (PGSI) than non-sports students ( $p < 0.01$ ). Finally, gambling expenditure ( $p < 0.01$ ) and regularity ( $p < 0.01$ ) was significantly lower among students studying non-sports degree programmes.

**Originality/value:** The findings of the present study provide evidence to warrant further investigation into gambling perceptions and behaviours among students on sports-based programmes, with a view to assessing the potential need for targeted awareness, tailored support, and how both can most effectively be provided.

**Keywords:** Problem Gambling, Students, University, Sports, Student Athletes, Responsible Gambling.

## Introduction

Recent reports detail how many students gamble whilst attending UK universities. Data from the Gambling Commission (2019a) reported that approximately 1.2 million students gamble, equating to two in every three students. Similarly, the Young Gamers and Gamblers Education Trust (2019) found that 47% of students had gambled in the past month, with 16% of those being at-risk or problem gamblers. Whilst insightful, these figures may be modest given the self-report nature underpinning such statistics, and they lack demographic variances. Understanding such variance in at-risk or problem gamblers is important given evidence that gambling among students studying sport and/or sport-related topics may be more pervasive and problematic than those students on non-sport-related degree programmes (Ellenbogen *et al.*, 2008; Martin *et al.*, 2016; St-Pierre *et al.*, 2014). There is a need to explore this variance in a UK context to better equip key stakeholders in protection from gambling-related harm. Before further framing this variance, it is necessary to outline why students offer a pertinent social group from which to examine gambling behaviours.

Students' propensity to gamble can be partly explained by the lifestyle, financial circumstances and greater independence commonly associated with university life. For many students, going to university involves having greater financial independence and managing greater levels of money via student loan

payments, part-time employment and/or living costs. However, poor budgeting has been identified as an issue amongst students (Vien, 2015). Therefore, one of the three key reasons students opt for gambling as a particular pastime is to seek an alternative source of income, along with boredom busting and conformity to social norms (Švegar *et al.*, 2017; Neighbors and Lostutter, 2002; NUS, 2019). The Young Gamers and Gamblers Education Trust (2019) report found that over half of students (52%) stated winning money as one of the main reasons for gambling. This primary reason can be more amplified for those 81% of students reporting as being affected by the UK's current cost of living crisis (Russell Group Cost-of-Living Survey, 2023).

Student access to gambling can also partly be explained by the UK's liberal attitudes towards gambling laws, and technological advances in online gambling and e-banking (Drakeford, 2015; Roshler, 2022; The House of Lords, 2021). Already owning a smartphone, for many students, entering university coincides with reaching the legal age to gamble and set-up a betting account. As often young adults, students can be enticed by the free bets offer when registering a betting account, one of many targeted advertising betting companies aim at young people (Guillou-Landreat *et al.* 2021; Killick and Griffiths, 2022; Oduor, Mberia and Ndavula, 2023). However, the UK government's attitude and approach towards gambling is not fixed and has been informed by many gambling awareness lobby groups, such as Bet No More UK, Gamble Aware and The Betting and Gaming Council. Therefore, it is necessary to note that student gambling currently take place in the context of emerging stricter policy and legislation regarding gambling products, the rise of Responsible Gambling (RG) devices, and the development of data-tracking systems (Chagas and Gomes, 2017; Gainsbury *et al.*, 2014; The Gambling Commission, 2019b).

Despite these regulatory and technological developments, many young people suffer from unaffordable monetary losses and gambling-related psychological issues that detrimentally effects their mental health and well-being, as well as those close to them (Holdsworth *et al.*, 2013; Messerlian and Byrne, 2004). This can subsequently impact students' university experiences, achievements, and engagement. Whilst over the last few decades many universities have expanded their focus on student well-being, study support and health services (Laws and Fiedler, 2012), there have been calls for universities to be more proactive in addressing students gambling-related issues through specific policies and support (Moore *et al.*, 2013; Sherba and Gersper, 2017, McGivern *et al.* 2023). However, at risk and problematic gambling is more difficult for peers and university staff to detect compared to other issues such as drug or alcohol misuse (Hing and Nuske, 2012; Ladouceur, 2004). Given these circumstances, there is a growing need to continue research concerning students' gambling behaviours at UK universities.

Positive correlations have been found amongst student-athletes increased gambling behaviour and other high-risk health behaviours, such as unprotected sex and substance misuse (Huang *et al.*, 2007b; Stuhldreher *et al.*, 2007). This correlation may be due to subjective norms, the prevalence and ease to bet on sports, and the social elements involved in student gambling behaviours (Huang *et al.*, 2007a; Lafferty *et al.*, 2017; Wang *et al.*, 2021). This correlation may also be due to the gendered student-athlete cohort in the UK. Male gamblers have been found to be more risky gamblers (Wong *et al.*, 2013), and more likely than females to gamble online, for longer periods and develop gambling-related problems, whilst feeling less guilt or shame from their gambling activities (McCormack *et al.* 2014). Student male athletes are also more likely to gamble than female athletes (Vinberg *et al.*, 2023), but gambling among females is increasing, though they are more likely to gamble on gambling machines rather than sports betting (REF needed). However, precise data concerning student populations is lacking (Baggio *et al.*, 2018), and much of this research has been conducted either in the United States (US) or Australia, highlighting a paucity of research among UK university samples.

Given the preceding findings, this study aimed to further explore gambling behaviours of students on sports-based and non-sport students in the UK universities. This knowledge could prove beneficial for universities proactively seeking to provide more targeted gambling-related advice, support, and campaigning.

## **Methods**

### *Design & Materials*

A survey was designed and administered to gather data for this study. The survey explored student gambling perceptions and behaviours, which included the 9-item Problem Gambling Severity Index (PGSI) (Ferris and Wynne, 2001). To establish the gambling-status of each participant, the survey comprised 14 questions focused on gambling expenditure, frequency, and general gambling behaviours (i.e., Preferred modes of gambling, forms of gambling). To be eligible to take part in the study, participants had to be aged 18 years or over, be an active student at a UK university, and have an interest in the topic of student gambling. The study was approved by the local university ethics committee.

### *Participants*

A total of 210 university students studying in the UK participated in the study (male,  $n = 78$ , female,  $n = 129$ ,  $n = 2$  did not wish to state their gender,  $n = 1$  identified as non-binary). The mean age of participants was 22.69 years, with a standard deviation of 6.33. Participants self-identified as White British ( $n = 184$ ), Other White background ( $n = 3$ ), Black ( $n = 2$ ), Caribbean ( $n = 2$ ), African ( $n = 1$ ), White and Black African ( $n = 2$ ), White and Asian ( $n = 2$ ), Indian ( $n = 4$ ), Bangladeshi ( $n = 1$ ), Chinese ( $n = 1$ ), Arabian ( $n = 1$ ), Other Black Background ( $n = 1$ ), Other Asian Background ( $n = 1$ ), Any Mixed Background ( $n = 2$ ), Other Ethnic Group or Background ( $n = 2$ ), Did not specify ( $n = 1$ ). This sample size is similar to other studies in this area (e.g., Mateo-Flor, *et al.*, 2020).

### *Procedure*

Each participant received a URL weblink to access the survey, which took approximately ten minutes to complete. URLs were made available via university channels of communication to ensure that participants were active UK university students. The opening screen of the survey explained the aims of the study and practical aspects of taking part. Participants were informed that their involvement in the study was voluntary, and that all data would be anonymised. Participants were able to withdraw from the study at any time and up to two weeks after taking part (zero participants met this criterion). Consent was obtained electronically. After providing consent, each participant responded to a series of questions pertaining to gambling. At the end of the study, participants were debriefed and thanked for their participation.

### *Data Analysis Strategy*

*H1*: There will be a significant association between students on sports-based degree programmes who gamble compared to non-gamblers, when grouped by gender and degree programme. Given low participation rates of non-binary participants, it was not possible to include these data in the analysis. A 2x4 Chi-Square test was used to examine if there was an association between Gambler Status (Yes/No) and Degree programme by gender (Male sport, Male Non-sport, Female Sport, Female non-sport). Criteria to run this test were met, in accordance with Yates *et al.* (1999).

*H2*: There will be a significant association between gambling regularity across student gamblers on sports and non-based degree programmes. A 2x2 Chi-Square test was used to examine if there was an association between Degree Programme (Sports-based, non-sports-based) and Gambling regularity (More than once a week, less than once a week).

*H3*: There will be a significant association between gambling expenditure categories among student gamblers on sports and non-based degree programmes. A conservative threshold of five pounds per week was deemed suitable based on previous findings among UK university students (YGam and GAMSTOP, 2023). A 2x2 Chi-Square test was used to examine if there was an association between Degree Programme (Sports-based, non-sports-based) and Gambling Expenditure (Less than £5 per week, Greater than £5 per week).

*H4*: Student gamblers on sports-based degree programmes will be higher risk gamblers than student gamblers on non-sports-based degree programmes. An independent samples t-test was used. The independent variable was Degree Programme (Sports-based, non-sports-based). The dependent variable of Risk was based on overall PGSI scores.

## **Results**

The survey achieved a 94.31% response rate. The sample comprised 128 non-gamblers and 82 gamblers. A total of 199 participants completed the PGSI. Frequencies were recorded for each of the following categories: No risk = 142, Low Risk = 32, Moderate Risk = 19, High Risk = 6.

*H1:* Table 1 shows the proportion of gamblers and non-gamblers when grouped by gender and degree programme (Sports-based, non-sports-based). A 2x4 chi-square test examined associations between these categories. The relation between these variables was significant,  $\chi^2$  (3, N = 207) 9.240,  $p$  .026. Results showed a high frequency of female student non-gamblers on non-sports-based degree programmes and a high frequency of male student gamblers on sports-based degree programmes.

Table 1: Gambler status frequencies by gender and degree programme

		Degree Programme by Gender				Total
		Male Sport Student	Female Sport Student	Male Non-sport Student	Female Non-sport Student	
Gambler Status	Gambler	35	17	4	24	80
	Non-Gambler	30	37	9	51	127
	Total	65	54	13	75	207

*H2:* Table 2 shows gambling regularity by degree programme. A 2x2 chi-square test examined associations between these categories, the relation between these variables was significant  $\chi^2$  (1, N = 81) 8.457,  $p$  .004. Results showed a significantly lower proportion of students studying non-sports degree programmes gambling more than once per week.

Table 2: Gambling regularity by degree programme

		Study Topic		
		Sport	Non-Sport	Total
Gambling regularity	More than once a week	26	5	31
	Less than once a week	26	24	50
	Total	52	29	81

*H3:* Table 3 shows gambling expenditure by degree programme. A 2x2 chi-square test examined associations between these categories, the relation between these variables was significant  $\chi^2$  (1, N = 79) 8.463,  $p$  .004. Results showed a significantly lower proportion of students studying non-sports degree programmes spending more than £5 per week.

Table 3: Gambling expenditure by degree programme

		Degree Programme		
		Sport	Non-Sport	Total
Gambling expenditure	Less than £5 per week	27	25	52
	Greater than £5 per week	23	4	27
	Total	50	29	79

*H4:* Scores on the PGSI were analysed between gamblers studying sport-based degree programmes ( $M = 2.78$ ,  $SD = 2.98$ ) and participants studying non-sports-based degree programmes ( $M = 0.55$ ,  $SD$

= 0.18). The data were within skew and kurtosis thresholds but did not meet the homogeneity of variance assumption. Therefore, an independent samples t-test (equal variances not assumed) was used. The t-test revealed a significant result  $t(62) = 4.85, p = <0.01$ , with gamblers studying sports-based degree programme scoring higher on the PGSI than gamblers on non-sports degree programmes.

## Discussion

The above results combine to explore gambling behaviours and preferences among university students on sports-based and non-sports-based programmes of study. For hypothesis one, the null hypothesis was rejected as results showed a preference for gambling among males on sports-based degree programmes, and a distinct lack of gambling uptake among females on non-sports-based degree programmes. This finding resonates with findings of Vinberg *et al.* (2023) highlighting how gambling likelihood is greater among males on sports-based programmes. This likelihood was not the case for females, whose proportionality was similar regardless of programme of study.

For hypothesis two, the null hypothesis was rejected as results showed a lower proportion of students studying non-sports degree programmes gambling more than once per week. This finding aligns with both Huang (2007a) and Vinberg *et al.* (2023) whereby gambling regularity was shown to be more common among students on sports-based programmes (i.e., gambling was prevalent to some extent with 50% gambling either more or less than once a week). However, this was not shown to be the case for non-sport students where very few gambling more than once a week, providing evidence for increased gambling activity among students on sports-based programmes.

For hypothesis three, the null hypothesis was rejected as results showed significantly lower frequency of students on non-sports-based degrees spending more than five pounds per week. This finding reflects a similar pattern regarding the previously mentioned gambling regularity and that found by St-Pierre *et al.* (2014), providing further evidence for greater gambling intensity in this cohort.

For hypothesis four, the null hypothesis was rejected as student gamblers on sports-based degree programmes scored higher on the PGSI than students on non-sports-based degree programmes. Overall, PGSI scores among gamblers were similar to other UK samples (e.g., YGAM and GAMSTOP, 2023) insofar as the majority fell into the 'no risk' category. However, the sample in the present study comprised more 'low risk' and fewer 'moderate risk' by comparison to the YGAM and GAMSTOP report. Taken together, these add to a growing body of evidence pointing to the need for a greater awareness and sensitivity among universities and their staff regarding the potential for gambling-related harms among students on sports-based programmes of study, and the need for signposted support.

### Limitations

The authors acknowledge that the findings do not provide a breakdown of gambling behaviours across year/level groups, or which specific sports student-athletes play or gamble on. Future research to address this would provide an additional perspective and further refine our understanding gambling across UK universities.

### Conclusion

Students, particularly males, studying on sports-based programmes at university may engage in more intense gambling behaviours than their peers on non-sports-based programmes. They may also be at greater risk of experiencing gambling related harm. These findings may further aid universities, staff, and stakeholders to provide more targeted gambling-related advice, support, and campaigning.

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